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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,562	04/16/2004	Aaron Hobart	55616.107557	2109
27526 7590 10/16/2007 BLACKWELL SANDERS LLP 4801 Main Street Suite 1000 KANSAS CITY, MO 64112			EXAMINER BODAWALA, DIMPLE N	
			ART UNIT 1791	PAPER NUMBER
			MAIL DATE 10/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/826,562	Applicant(s) HOBART, AARON	
	Examiner Dimple N. Bodawala	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 and 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/21/2005</u> | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Applicant's election of Group I corresponding to claims 1-7 and 12 drawn to a system for manufacturing a polymer mat in the reply filed on June 05, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Pellegrin et al. (U S Patent No. 5,900,206).

4. Pellegrin ('206) discloses an apparatus form making fibrous packing which comprises an extruder (60), a polymer line (62), which is fed by a polymer manifold (not shown in figure), which inherently teaches a pump for receiving a material from the extruder (See figure 3). It further discloses a plurality of spinning pack (12,50) for receiving

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the polymer material from the pump line (See figure 3). Figure 3 further teaches that the extruder (60) having a hopper as a receiving chamber for receiving a plurality of polymer chips and an exit.

5. It further discloses a moving chain (14) as a belt, wherein the belt is located below the plurality of spinning packs and positioned to receive a plurality of polymer filaments created when the extruded polymer is passed through the plurality of spinning packs (12,50) (See figure 1). It further discloses an entangling means receiving the plurality of filament from the belt (14) and forming the plurality of polymer fibers into a mat (See figures 4 and 5).

6. It further teaches that the spinning pack or die comprises a plurality of orifices, which inherently suggest that die or spinning pack comprises a plate with orifices (See col.7 lines 18-23). It further teaches that the die (50) has a lesser number of orifices than one or more of the remaining spinning pack (12) (See figure 1), wherein the die with the lesser number of orifices is aligned with an outer lateral edge of the belt (14) (See figure 1). Figure 1 further teaches that die with lesser number of orifices comprises a series of spinning pack having a lesser number of orifices positioned as the laterally outermost spinning packs in a row of spinning packs. Figure 1 further teaches that the die (50) with lesser

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number of orifices has about 50% or less as many orifices as the remaining spinning pack (12).

7. It further teaches that the polymer fibers are polyethylene fibers (See col.5 lines 25-40). It further teaches that the final polymer fibers of the filaments having diameter is about 3 to 8 microns, the dies having a diameter about 4 to 25 microns (See col.5 lines 5-11), which is about 50% or more larger than the diameter of the fibers, which inherently teaches that the spinning pack comprises a bore, wherein bore having a first end to receive the feed polyethylene and a second end that outputs a filament, the first end having a diameter at least about 505 or more larger than a diameter of the second end as defined in claim 7 of the instant application.

8. Pellegrin ('206) discloses all claimed structural limitations as discussed above, and, thus, the claims are anticipated.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Varona (U S Patent No. 5,679,042) in view of Allen (U S Patent No. 6,220,843).

12. Varona ('042) discloses an apparatus (105) which comprises an extruder assembly (114), a motor (118) as a pump for receiving an extruded polymer from the extruder, wherein the pump forces the molten material through the extruder into the delivery pipe (120), a hopper (110) for receiving a polymer chip (112), plurality of spinning pack (122,124,126) receiving the extruded polymer from the pump or extruder assembly, a conveyor belt (116, 128), wherein the belt (128) is located below the plurality of spinning pack and positioned to receive a plurality of filaments (A,B,C) created when the extruded polymer is passed through the plurality of spinning pack (See figure 5, col.6 lines

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42-66), and an entangling means such as conventional withdrawn roll or calendar roll for receiving the plurality of polymer filaments from the belts, and involved to emboss or bond the web (100) into a mat or other product with a pattern (See col.7 lines 23-30). It further teaches that the polymer fiber is PET or polyethylene (See col.5 lines 54-56).

13. It further teaches that the die head (122) produces large denier, die head (124) produces medium denier and a die head (126) produces fibers of fine denier, then the resulting gradient will have the fibers in zone A having largest pore size, zone B having smaller pore size and Zone C having smallest pore size (See col.7 lines 52-60). It further teaches that the die head having apertures of different diameter and positioned as the laterally outermost spinning packs in a row of spinning packs, and aligned with an outer lateral edge of the belt, but fails to teach or suggest that one of the plurality of die head having lesser number of orifices.

14. It further teaches that the orifices of the a spinning pack comprises a bore having a first end to receive the material and a second end that outputs a filaments (See figure 5), the first end having diameter at least about 50% larger than a diameter of the second end (See col.5 lines 56-63).

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15. Varona ('042) discloses all claimed structural limitations as discussed above, but fails to teach or suggest a spinning pack having a plate with multiple orifices.

16. In the analogous art, Allen ('843) discloses an a melt blowing apparatus which comprises plurality of spinning packs in a row, wherein a spinning pack having a plate (11,12) with multiple orifices (See figures 3 and 4). Figure 3 further teaches different shapes of the filaments which inherently teaches that the one or more spinning packs of the plurality of spinning packs comprises lesser numbers of orifices (See assembly and operation of the patent).

17. It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Varona ('042) by providing a spinning pack with a plate wherein plate comprises multiple orifices because such an alignment is involved to achieve a predetermined and varied pattern of the product (See col.8 lines 1-7) as suggested by Allen ('843).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dimple N. Bodawala whose telephone number is (571) 272-6455. The examiner can normally be reached on Monday - Friday at 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DNB


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